REMARKS

The Office Action dated January 3, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1, 3-7, 12, 15, 17, and 20 are amended to more particularly point out and distinctly claim the subject matter of the present invention. Support for the amendments is found at least on page 13, line 2 and page 20, lines 8 - 20 of the present specification. No new matter is added. Claims 1-20 are respectfully submitted for consideration.

The Office Action rejected claims 1-6 under 35 U.S.C. 103(a) as being obvious over US Patent No. 6,249,252 to Dupray (Dupray), in view of US Patent No. 6,300,904 to Dvorak (Dvorak), in further view of US Patent No. 6,438,723 to Kalliojarvi (Kalliojarvi). The Office Action took the position that Dupray disclosed all of the features of these claims except analyzing an effect of ignoring a measurement, which is asserted in the Office Action as being disclosed by Dvorak, and the feature of identifying suspicious measurements, which is allegedly disclosed by Kalliojarvi. Applicants respectfully submit that the cited references taken individually or in combination, fail to disclose or suggest all of the features recited in any of the pending claims.

Claim 1, from which claim 2 depends, is directed to a method of providing information regarding a location of a mobile user of a communication system. Measurements are received from a plurality of sources for provision of input data for a location calculation function. Results of ignoring each of said measurements, are

analyzed to identify suspicious measurements. Selected measurements are decided for use by the location calculation function. A location estimate is calculated for a mobile user based on the selected measurements.

Claim 3, from which claim 4 depends, is directed to an apparatus. A receiving device is configured to receive from a plurality of sources measurements for provision of input data for a location calculation function. An analyzer is configured to analyze results of ignoring each of said measurements to identify suspicious measurements. A deciding unit is configured to decide selected measurements for use by the location calculation function. A calculating device is configured to calculate a location estimate for a mobile user based on the selected measurements.

Claim 5, from which claim 6 depends, is directed to an apparatus. A receiving means receives from a plurality of sources measurements for provision of input data for a location calculation function. An analyzing means analyzes results of ignoring each of said measurements, to identify suspicious measurements. A deciding means decides selected measurements for use by the location calculation function. A calculating means calculates a location estimate for a mobile user based on the selected measurements.

Applicants respectfully submit that each of the above claims recites features that are neither disclose nor suggested in any of the cited references.

As discussed in previous correspondence, Dupray is directed to a location system is disclosed for commercial wireless telecommunication infrastructures. The system is an end-to-end solution having one or more location centers for outputting requested

locations of commercially available handsets or mobile stations (MS) based on, e.g., CDMA, AMPS, NAMPS or TDMA communication standards, for processing both local MS location requests and more global MS location requests via, e.g., Internet communication between a distributed network of location centers. The system uses a plurality of MS locating technologies including those based on: two-way TOA and TDOA; pattern recognition; distributed antenna provisioning; GPS signals, angle of arrival, super resolution enhancements, and supplemental information from various types of very low cost non-infrastructure base stations for communicating via a typical commercial wireless base station infrastructure or a public telephone switching network.

Dvorak is directed to a method for calculating a position of an item to be located, which uses average time difference of arrival of signals from the item at multiple spaced apart receivers. Multiple pulses of narrow band signals of varying frequency are detected by multiple spaced apart receivers such that average time difference of arrivals of the signals from an item to be located, are determined. The average time differences are used to calculate a position of the item to be located with a desired accuracy, such as within one meter in one embodiment. One of multiple receivers or rangers initiates a location process by transmitting a sync pulse. The sync pulse is received by a scout and other rangers. The scout is a small robot which acts as a transponder, sending out its own narrow band return pulse in response to the sync pulse. Each ranger then determines a difference in time between the sync pulse it receives and the return pulse generated by the

scout. The location process is then repeated again at different selected narrow band frequencies, and an average of the difference in time at each ranger is determined.

Kalliojärvi relates to a method for reliably receiving digital information from a transmitting device. A method is provided for reliably receiving digital information from a transmitting device. The information to be received is arranged in discrete subunits so that a predetermined number of subunits correspond to a superunit. It is encoded with a certain error detection cod, corresponding to a certain error detection decoding method, and additionally with a certain error correction code, corresponding to a certain error correction decoding method. According to Kalliojarvi, a superunit is error correction decoded, and during the error correction decoding, the decoding reliability of each subunit of the superunit to be decoded is separately estimated. The error correction decoded superunit is error detection decoded, and during the error detection decoding it is detected, whether or not there were errors in the superunit to be decoded. Although the method relates to error detection and correction, it merely concerns how packet data is coded, transmitted and received, including how errors in the data are corrected and how data is retransmitted.

Applicants respectfully submit that the cited references fail to disclose or suggest at least the feature of analyzing results of ignoring each of said measurements to identify suspicious measurements, as recited in claim 1 and similarly recited in claims 3 and 5. The Office Action relied on Dvorak to disclose this feature. However, Dvorak and thus, the cited combination of references, merely describes statistical analysis of ignoring high

and low values (See col. 2, lines 34 and 35 of Dvorak). In the "Response to Arguments" section the Office Action asserted that this featured is disclosed in col. 2 lines 23-25 and col. 4 lines 39-59 of Dvorak. However, Applicants submit that a high or low value is not a "suspicious" measurement under any reasonable interpretation of Dvork.

Applicants respectfully submit that because claims 2, 4 and 6 depend from claims 1, 3 and 5, these claims are allowable at least for the same reasons as claims 1, 3 and 5, as well as for the additional features recited in these dependent claims.

Based at least on the above, Applicants respectfully submit that the cited references fail to disclose or suggest all of the features recited in claims 1-6. Accordingly, withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

The Office Action rejected claims 7-20 under 35 U.S.C. 103(a) as being obvious over Dupray in view of Kalliojarvi. The Office Action took the position that Dupray disclosed all of the features of these claims except a suspicious measurement identifier configured to identify suspicious measurements. The Office Action asserted that Kalliojarvi disclosed this feature. Applicants respectfully submit that the cited references, taken individually or in combination, fail to disclose or suggest all of the features of any of the above claims.

Claim 7, from which claims 8-11 depend, is directed to a location system. A controller is configured to control at least one base station. A location service node is configured to provide a client application with measurements from a plurality of sources

regarding geographic location information of at least one mobile station. An interface is configured to receive the measurements regarding the geographic location information of the at least one mobile station and to transmit the measurements regarding the geographic location information to a location device. The location device is configured to determine a location estimate based upon the measurements regarding the geographic location. A suspicious measurement identifier is configured to identify suspicious measurements by analyzing a discrepancy between the measurement and the location estimate.

Claim 12, from which claims 13-16 depend, is directed to a method for providing location information to a user in a communication system. At least one base station is controlled. A client application with a measurement regarding geographic location information of at least one mobile station is provided. The measurement of the geographic location information of the at least one mobile station is received. The measurement of the geographic location information to a location means for providing location services is transmitted. A location estimate is determined based upon the measurement regarding the geographic location. Suspicious measurements are identified by analyzing discrepancies between each of said measurements and the location estimate.

Claim 17, from which claims 18-20 depend, is directed to a location system. A controlling means controls at least one base station. A first providing means provides a client application with measurements from a plurality of sources regarding geographic location information of at least one mobile station. A receiving means receives the measurements regarding the geographic location information of the at least one mobile

station. A transmitting means transmits the measurements regarding the geographic location information to a location means for location services. A determining means determines a location estimate based upon the measurements regarding the geographic location. An identifying means identifies suspicious measurements by analyzing discrepancies between each of said measurements and the location estimate.

Applicants respectfully submit that each of the above claims recites features that are neither disclosed nor suggested in any of the cited references.

Dupray and Kalliojarvi are discussed above. Applicants respectfully submit that the cited references fail to disclose or suggest at least the feature of a suspicious measurement identifier configured to identify suspicious measurements by analyzing a discrepancy between the measurement and the location estimate, as recited in claim 7 and similarly recited in claims 12 and 17.

The Office Action relied on Kalliojärvi to disclose this feature. However, Kalliojärvi merely involves identifying suspicious data subunits on the basis of its estimated decoding reliability. This is entirely different to identifying suspicious location measurements from a plurality of sources according to the effect of ignoring them in a location calculation, as recited in claims 7, 12 and 17. Thus, the cited references fail to disclose or suggest at least this feature because Kalliojärvi fails to cure the admitted deficiencies of Dupray.

In the "Response to Arguments" section, the Office Action asserted that the cited references teach a receiving device applying a list decoding error correction decoder.

However, Applicants respectfully submit that the cited references are silent with regards to identifying suspicious location measurements from a plurality of sources according to the effect of ignoring them in a location calculation, under any reasonable interpretation of the cited references, in particular Kalliojärvi.

Applicants respectfully submit that because claims 8-11, 13-16 and 18-20 depend from claims 7, 12 and 17, these claims are allowable at least for the same reasons as claims 7, 12 and 17, as well as for the additional features recited in these dependent claims.

Based at least on the above, Applicants respectfully submit that the cited references fail to disclose or suggest all of the features of claims 7-20. Accordingly, withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

Applicants respectfully submit that each of claims 1-20 recites features that are neither disclosed nor suggested in any of the cited references. Accordingly, it is respectfully requested that each of claims 1-20 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosures: Request for Continued Examination (RCE) Transmittal
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